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Tide turning for clammers

As water quality improves, more tidal flats are opened to diggers

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Like the thousands of recreational and commercial diggers who flock to the flats in search of soft-shell clams, state and local officials are on the hunt, ferreting out pollution sources that still keep many clam flats closed along South Shore waterways.

"As we identify and take care of some of the big problems, we are now focused on trying to tease out smaller pollution problems that were masked by the big ones," said Jan Smith, director of Massachusetts Bays National Estuary Program.

Clamming is a multimillion-dollar industry for the state and an integral part of its marine heritage, and soft-shell clams also serve as a barometer of water quality. Cleaner clams mean cleaner water. And the tide, environmental officials say, is slowly turning in favor of cleaner water in some areas from Quincy to Plymouth.

"We've opened more acreage over the past few years, which is a positive sign," said Neil Churchill, a biologist with the state Division of Marine Fisheries. "The areas that are left [to fix] are the ones that take money, time, and energy."

In Quincy last month, a section of Wollaston Beach called Caddy Park, extending from Fenno Street to Quincy Shore Drive, reopened after a decade shutdown due to high bacteria levels. City sewer lines and discharge from the now-closed Nut Island sewage treatment plant were partly to blame for the pollution, said Andy Ayer, Quincy's shellfish warden.

Ronnie Doaln of Norwell (left) and Michael Canning of Duxbury took a break while digging for clams on Duxbury Beach last week.

In Plymouth, where the harbor and Warren's Cove are closed to clamming due to pollution, improvements in water quality have put 10 miles of Plymouth's coast back in action over the past four years, said Ralph Savery, the town's shellfish warden.

And in Duxbury, where the majority of flats are open for recreational clamming, beds along the Bluefish River flats and Eagles Nest Bay were reopened in 1996, and additional acres continue to be opened thanks to town efforts to upgrade sewer systems, said Frank Germano, the Division of Marine Fisheries biologist who tests the area. "We're on a high cycle right now," said Donald Beers, Duxbury's harbor master. "We're seeing a lot of high quality shellfish and high water quality."

The Division of Marine Fisheries, which controls the openings and closings, has reopened more than 1,000 acres along waterways from Quincy to Plymouth over the past four years, for a total of 124,000 acres now open from Quincy to Plymouth. Still, 17,000 acres remain closed to clamming.

The contamination is attributed, among other things, to failing septic systems and leaks in sewage pipes as well as storm drains that deposit oil from cars, fertilizers, and animal waste into rivers and bays.

The Quincy opening has raised hopes for other beds in Quincy, Weymouth, and Hull that could have cleaner water as a result of the Nut Island closure.

Ray Nash, Weymouth's shellfish warden, and Norm Rogers, Hull's acting shellfish warden, said

CLAMS, Page 6

Cleaner water turns tide for clammers

GLOBE PHOTOS / KERRY BRETT HURLEY

In Duxbury, where Michael Canning was clamming along Duxbury Beach last week, most shellfish beds are open for recreational clamming.

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Among Cory Wineski's duties as deputy shellfish constable in Duxbury is to check the shellfishing permits of the clammers digging in the flats behind her.

■ CLAMS
Continued from Page 1

they hope to see an improvement in water quality when the new outfall pipe from the Deer Island sewage treatment plant goes on line.

The pipe, which was scheduled to open in September and has been put on hold while State Police and health safety officials investigate an accident that killed two men working on the line in August, is now scheduled to begin operating in January.

David Roach, the Division of Marine Fisheries biologist for the area, said the outfall pipe could lead to reopened beds on Nantasket Beach in Hull and Peddocks Island. The division, which controls openings and closings, may approve them unconditionally or conditionally based on factors such as the season and amounts of rainfall, which can carry more pollutants into the water.

Currently beds in Quincy, Weymouth, Hingham, and Hull are conditionally restricted, which means they are opened only to licensed commercial diggers, who must take their haul to the purification plant on Plum Island in Newburyport for 48 hours of cleaning before they are sold.

Under state rules, counts of fecal coliform bacteria, a product of human and animal wastes, must be under 14 parts per 100 milliliters to open shellfish beds; under 200 is acceptable for swimming. To open a conditionally restricted area, the counts must be no higher than 70.

About 20 percent of the state's 1.75 million acres of clam flats are closed, according to data from the Division of Marine Fisheries. The numbers show that environmental cleanup measures are making inroads, because there are 10 percent more beds open today than three years ago.

But the battle continues in places like Plymouth, where the Division of Marine Fisheries expanded the closure area in Plymouth Harbor and Warren's Cove last year, resulting in the loss of 250 acres of clam flats. And as with many other areas steeped in contaminants, state and local officials are still searching for the sources of pollution.

"There's an unexplained high fecal level," said Germano, the biologist with the Division of Marine Fisheries. "For some reason the entire harbor has gone bad, and we were forced to shut the harbor. We're still looking at it."

State biologist Churchill said the

(4 of 7)

state is continuing to test the water quality there and is waiting for Plymouth's sewage treatment plant to go on line to see if it has an effect on the water quality before further, more difficult attempts are made to find a culprit. The plant is expected to be in place in two to three years.

Paul Somerville, coordinator of the Shellfish Bed Restoration Program for state Coastal Zone Management, said the water quality in Kingston has improved due to town initiatives to upgrade sewage systems, but the counts are not low enough yet to open shellfish beds there.

Cliff Dickson, Cohasset's shellfish warden, said runoff polluted by lawn chemicals and failing septic systems is the main reason why his town's clam flats are closed.

"Clamming here is zero," he said. "Every month we test, and it is improving, but not near where we can use those [clam beds]."

Right now, the marketplace is clamoring for clams, which raises prices and intensifies pressure to open more beds. And in most cases along the South Shore, state, local, and private groups are working together to make it happen.

In Cohasset, town health agent Joseph Godzik said the town is expecting the results of a water-quality study of Little Harbor this fall. To supplement the study data, Cohasset high school students and teachers, with the help of a state grant, have been testing the harbor waters throughout the summer.

Godzik said the town is seeking a $500,000 grant from the Executive Office of Environmental Affairs to pilot a program to create a disposal area to catch polluted runoff from area houses before it spills into Little Harbor. The town is also seeking about $60,000 from the state to renovate area catch basins to contain sediments, oils, and grease before they run into Little Harbor and to set up an educational program for home owners and landscapers about lawn chemicals. The program would feature classes and brochures to show people the proper use of lawn chemicals and the effect improper use has on the environment.

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>
> PAULA BOYCE, *North and South Rivers Watershed Association*

While toxins such as pesticides, chemical fertilizers, and heavy metals sully some area waterways, marine fisheries biologist Roach said that bacterial pollution poses the larger problem to the health of shellfish beds.

"It's a matter of public health versus environmental health," said Roach. "We're interested in public health, so we test routinely for bacterial counts, because they are more of a concern. We also test for toxins but not as regularly."

Roach said some federal agencies and the Massachusetts Water Resources Authority also sporadically test toxin levels in some waters. If there is a special concern about toxins in an area, the division tests rigorously to make sure the beds meet standards, he said. Unless there is a chemical spill, toxin levels tend to remain consistent or decrease, Roach said, whereas bacterial counts are

Continued on next page

Pollution still limits the harvesting of clams

Continued from preceding page

more apt to fluctuate because they are affected by rain, sewer capacity, and variables.

Bacterial contamination is the issue in Norwell, where the North and South Rivers Watershed Association has been working with local and state officials to resolve the river pollution problem.

"I don't know if we'll see it in our lifetime," said George Burgess, Marshfield's harbor master, about clam flats opening again on the North River. "We've made great strides, but there's still a war."

A test in 1997 to reopen flats along the North River banks lasted two months before poor fecal coliform counts shut it down, and the flats have not reopened since.

Paula Boyce, rivers association assistant director, said that about 20 association volunteers monitor fecal coliform bacteria counts in 10 spots along the North River. The association, which has been testing the waters for the past eight years, is tracking pollution trends in collaboration with the state.

"People assume the river is clean all the time, and it isn't," said Boyce. "We are working to find solutions. You can't even consider having shellfish beds open unless the river is clean."

State biologists and Somerville of the shellfish program said they plan to concentrate next on Kingston Harbor, the North and South rivers, and the Bay Road area of Duxbury. This means a team of people, including state and local officials, will visit the site, assess the water quality, and put together a plan of attack.

The problems that need to be addressed, Somerville said, could range from failed septic systems and problems with cross connections between storm drains and septic systems to finding a troublesome place where people are curbing their dogs.

While the number of polluted areas is still staggering, Somerville said he is optimistic about future cleanup efforts.

"The topic [of shellfish bed restoration] ebbs and flows like the tide," said Somerville. "Sometimes it's hot, and sometimes it fades. Right now it's up there."

A lot now depends on the towns' willingness and ability to spend the money and put forth the resources to clean up the problems state agencies are identifying, Somerville said.

In Scituate, where all flats except for one are closed due to pollution problems, shellfish warden Joseph Strazdes said he has high hopes for cleaner water in the future. "People have become much more aware of water quality," said Strazdes. "Both public and private groups have worked to not only spearhead campaigns to improve water quality, but to make the public more aware."